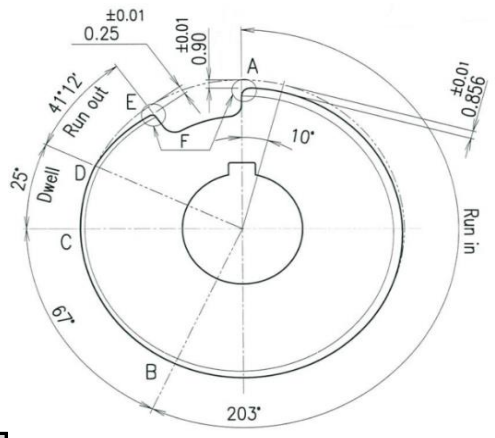
Application Data Sheet

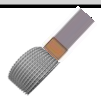
Rolling Die Ø173.43 W30

A21-010



To produce a rolling die with a tooth height of 2.289mm, the following grinding cycles are used. To grinding the chamfer in two passes, a CBN wheel can be used. The roughing of the tooth profile consist 120 passes with an infeed of 0.02mm. This is followed by a finishing with 5 passes. A dressed corundum wheel is used for the of the teeth profile. For the Roll Off, the tooth tip gets removes by a 1A1 corundum wheel.

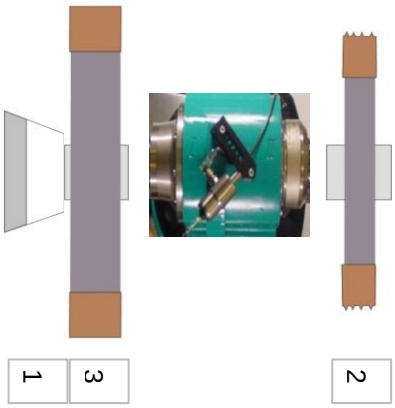
1. Cycletime for Production

Workpiece: Diameter 173.43 mm, Helix angle 7°02' Material HSS					
Operations	 Probe	 Chamfer	 Prf Rough	 Prf fin	 Prf Cyl
Feed [mm/Min]	2000	150	2000	600	600
Power [kW]		1	2	1	1
Cutting speed [m/s]		24	32	24	24
Used wheels		 1	2	2	 3
Grinding time [s]	6	870	11467	1593	50
Total cycle time	233 Min 5				

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	11V9 Ø100 B126
2	DXF Ø250 B126
3	1A1 Ø250 B126



3. Machine and Software Requirements

Machines: 5 axes CNC grinders : NGM
Control: Fanuc 31iB 5
Accessories:

Coolant: Synthetic Oil, pressure 6 bar
Software: Qg1

Responsible engineer: PAH, 20.08.2019

www.schneeberger.ch
J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland
Subsidiaries in: France, Deutschland, Italia, United States, China

TECHNOLOGY FOR TOOLING